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ORIGINAL ARTICLES.

Aseptic Obstetrics

BY W. J. McDONALD, M.D.

Read before the Northwest Kansas Medical Association, August 7, 1894.

The pestilential microbe which seeks to implant septicemia upon abraded surfaces and lacerations, finds a ready field for its culture and development in the person of the puerperal woman. Nor is the ravages of this most formidable disease limited to the mother of a newly born babe, but the female who has suffered abortion or miscarriage is likewise liable. Asepsis in obstetric practice as understood in its broadest sense has been brought to a high degree of usefulness and importance within the past few years. Nevertheless for many years the aggressive physician recognized the value of cleanliness in the lying-in room. And again, for a long time when but little or nothing was known about the septic germ, the physician was aware that there existed some kind of poison in the person or about the person of the patient afflicted with puerperal fever, and as a preventive of another case would withhold his professional services from another case of labor. To our misfortune, be it said, we are not always permitted to conduct our patient from the beginning of the lying-in period to the end. Too often are we called in where septicemia is already developed. The numerous midwife has preceded us and attended the woman during the parturient act. God only knows how little she knows about this important branch of medical science. She don't know that if she has been helping to nurse diphtheria, scarlatina, typhoid fever, erysipelas, or puerperal fever, that without thorough disinfection and the most cautious observance of methods of cleanliness, she is greatly liable to contaminate this case of labor with septic poison. Nor does she know whether there are lacerations or whether there may be some of the placental mass retained in the os or within the cavity of the uterus. Again, we are called upon to treat some young woman suffering with puerperal peritonitis; usually death ends the scene. A post mortem examination reveals the murderous work of some abortion fiend.

These are some of the unpleasant difficulties which beset the pathway of the honorable practitioner where asepsis figures as a back number, and where in many instances antiseptic treatment avails nothing.

Nature is so efficient in the obstetrical field that asepsis is the usual accompaniment and result despite its non-observance, and thereby gives a measure of success, seemingly, to the uninformed midwife. If this were not the case a woeful picture would the mortality statistics show in the childbirth record. This is no argument, however, against aseptic management of every case. Take, for instance, a case which we may suppose is not liable to septicemia, and assume that she will recover without any special attention to asepsis, which she may with a moderate degree of comfort. The same woman, under proper aseptic care, will have more comfort during her puerperal period—will suffer less from nervous disturbances and irritative troubles, and will make a safer and generally a more satisfactory recovery. The reason is obvious, without consuming time and space to prove such a proposition. It is well known that the lochial discharge containing the

debris and excrement from the uterine cavity is nature's means of egress for degenerate substances.

And while the process is physiological, it contains elements of decomposition. Add to this causes which come from external influences and you have an atmosphere in the patient's room which from its odor diagnoses the case alone, and which is also poisonous to the woman herself.

Coming now to consider aseptic measures in detail, we find ourselves confronted with certain rules and the observance of what seem to be little things, so that the scriptural injunction, "Despise not ye the day of small things," seems to have an application here.

When there exists in the community erysipelas, typhoid, puerperal or scarlet fever, or diphtheria or smallpox, the most scrupulous care should be exercised, and while each disease may afford its own peculiar germ, yet when brought in contact with the person of the parturient woman a case of septicemia is greatly liable to be developed. The physician in attendance upon any one of the above maladies, or a suppurating wound, should change his clothing, disinfect his hands by washing in a 1-1000 solution of bichloride in hot water. There should not be left a vestige of terra firma under his finger nails.

If the pregnant female is known to be afflicted with gonorrhea, she should be thoroughly cured before her confinement.

If the woman about to be confined seems to be in want of proper cleanliness, that is to say, should she be surrounded by filth and the doctor has reason to believe that a goodly portion of it exists on her own person, it is a proper procedure to induce her to take a medicated hot hip bath during the first stage of labor. Some attention should be paid to the alimentary canal of the newly confined woman. Her food should be clean as well as her clothing. A plain diet of toast and tea for the first two or three days is much safer than a variety, which may represent different grades of cooking, and foods of different ages. The writer recalls a case of a lady with a two-day's-old babe, who took a singular fancy for a piece of corn bread which had been baked several days previously, and contrary to the wishes of both the husband and nurse, consumed a large portion of this musty morsel and followed it with a large draught of cold water. In less than three hours a heavy chill supervened with violent abdominal pains, a clear case of puerperal peritonitis was developed, and the woman died inside of three days. If water is being consumed by a family which is supposed to be impure, and which is producing typhoid disease, it should by all means be forbidden to the female who is soon to be confined. The alimentary canal should be evacuated as often as once every twenty-four hours. Constipation at confinement is not only an impediment to labor, but fecal matter retained in the colon and rectum at the time of parturition by its mechanical presence alone causes greater pressure upon the tissue of the os and vagina, increasing the liability of injury as well as to render the abdominal viscera subject to septic poison. Upon making the first digital examination, if the rectum be found distended it is our duty to give an enema at once, and that with a syringe which we know to be aseptically clean. It has been recommended that during the progress of labor the woman refrain from too much muscular exertion in the first stages. This is good advice so far as husbanding her strength is concerned, but in an aseptic sense it is also good, for the reason that elements of tissue waste from prolonged muscular exhaustion may not be eliminated from the system in time to save the patient from septic poison. It being necessary to use the female catheter in some instances before the termination of labor, in others after confinement, the practitioner who is cautious will see that his catheter is aseptically clean.

In those cases of rigid os or stenoses which may require some digital or mechanical manipulation to overcome the difficulty, we should not forget our aseptic rules in regard to the management of the case. And even after we have accomplished the delivery of the child in such a case, we

should have some suspicions in regard to a lacerated cervix, and should one be found it would be wise policy to irrigate the wound once a day with a 1-1000 solution of bichloride of mercury. And in no instance of this kind should the physician permit the nurse to perform this duty, but he should use the vaginal douche with his own hands, and that in a gentle manner.

When it becomes necessary, as occasionally it does, to introduce the hand within the cavity of the uterus, it may be to "turn and deliver by the feet" or to remove a retained placenta. The life of our patient may hang upon so small a contingency as to whether or not the hand of the operator be most scrupulously and aseptically pure. Once in a while we hear of the death of some lady in some community; it having been given out in public parlance that the "after-birth had grown to her side" and the doctors had to take it from her, and she died of blood poison. Since the observance of asepsis in obstetric practice we are prone to wonder upon hearing of such a case whether or not aseptic measures were strictly carried out. In all cases of delivery of the placenta we should satisfy ourselves that no portion be retained; we should examine the placental mass to see that it is intact, that none of the decidua remain to be decomposed within the uterus. In many instances a complication of this sort can be avoided by careful and gentle procedure when the bulk of the placenta has passed out of the vulva, but still is retained by membranes. By manipulating the abdomen over the region of the uterus to cause contractions, and by a very little traction upon the protruding mass. Occasionally a thrombus of the vulva must receive our attention at the time of parturition. It most cases we find it necessary to relieve the tumified condition by at once lancing it and removing the clotted venous blood. This complication makes an additional liability to the puerperal state of the patient to the development of septicemia, and we are not to forget to treat the wound aseptically. The application of Aristol, followed with bichloride gauze, after first cleansing the wound with an aseptic wash, we have found successful by being repeated twice daily.

To epitomize: Asepsis in obstetrics is the observance and practice of asepsis in the lying-in room, with the principal object in view of guarding against puerperal fever. And, in order to succeed, we must operate and assist our patients with hands aseptically clean, also with instruments aseptically clean. We must exercise due diligence when puerperal, typhoid or scarlet fever, or diphtheria, or smallpox, or erysipelas exists in a community, not to carry any of the germs of any one of these maladies to the parturient woman in our clothing or on our persons. Therefore, we should change our clothes and disinfect most cautiously.

McBurney's New Method of Incision in the Abdominal Wall in Cases of Appendicitis.

By J. E. SUMMERS, JR., M.D., Omaha, Neb.

In the July number of the *Annals of Surgery* there is an exceedingly interesting and instructive paper by Dr. McBurney, which ought to be read with profit by surgeons accustomed to operate for appendicitis.

It is a well-known fact that hernia is apt to follow any one of the usual incisions for any of the varieties of appendicitis, and if by improvement of technique this tendency to hernia can be lessened or overcome, another advance will have been made towards coping successfully with this murderous disease. Dr. McBurney describes his new incision briefly as follows: "An oblique incision in the skin about four inches long is made in the usual position and about one inch from the iliac spine. The external oblique muscle and aponeurosis are divided in the same line, *not cutting any fibres across*. After retracting the edges of the wound strongly, the internal oblique muscle is seen, the fibres of which cross somewhat obliquely the wound already made. With a blunt instrument, such as Kocher's director, the

fibres of the internal oblique and transversalis muscles can be separated without cutting more than an occasional fibre, in a line parallel with their course—this is nearly at right angles to the incision in the external oblique aponeurosis. The transversalis fascia and peritoneum are then divided. McBurney states that the drawback to this method of operating depends upon the absolute necessity for two pairs of retractors, the one for the first incision, the other for the opening made beneath and at right angles to it. He does not think it especially suitable for suppurating cases because of the somewhat limited space.

He says: "It is not an easy operation, and should not be attempted by those who are unfamiliar with operations upon the appendix, and I again call attention to the fact that in performing it two extra assistants will be occupied part of the time with retractors." He has done the operation four times. In July just passed I did this operation twice, having learned of it before its inventor's paper appeared. The first case was upon an adult, the second a child three years of age; both recovered with strong cicatrices, and although I operated for appendicitis a number of times during this period and since, yet the cases were not suitable for the incision. In thus calling attention to this improved operation in selected cases, I desire to state that the number of retractors can be reduced to two, and only one extra assistant required, if so soon as the first incision is made two temporary sutures are introduced through the edges of the wound, about its middle, and each introduced, tightened and tied; the one through the skin over the left rectus muscle, the other in the same line through the skin covering the right gluteus maximus muscle. This causes wide separation of the edges of the incision and does away with the inconvenience of the hands and retractors of an extra assistant. The wound is closed of course from the bottom, by layers of buried sutures, and thus "it will be seen that the grid-iron like arrangement of the muscular and tendinous fibres, to which the abdominal wall largely owes its strength, is restored almost as completely as if no operation had been done." I believe this operation suitable in most all forms of appendicitis if done early and before too extensive changes have taken place, requiring a very large opening for inspection and manipulation.

Cystic Sarcoma of the Testicle.

A clinic by R. E. McVey, M.D., Professor of Clinical Medicine, Kansas Medical College.

This is a non-malignant growth which is the most common form observed.

The cysts are variable in size, and are almost inseparable and are lined with tesselated epithelium. In the malignant form the epithelum contains nucleated cells, and if the gland is removed the disease would return and the constitution become infected. This tumor is eighteen inches one way and seventeen the other way, and probably is of specific origin because it is painless and of slow growth. Sir A. Cooper believed that cysts were due to obstruction of the semeniferous tubes. As you see the whole of the tunica vaginalis is enormously distended. The penis is almost lost in the growth. The tumor is composed of tough walled cysts joined into a compound mass. The cysts are from the size of a millet seed to that of a pigeon's egg. The walls of these cysts are composed of tough, fibrous tissue. The fluid in the cysts varies. In some it is clear, in others bloody. Some of them may contain mucus or serum.

Some of these cysts are near the surface, as they fluctuate. Again, in other points, you feel hard cartilaginous masses. By the use of a light you see the tumor is not transparent, therefore it is not a hydrocele.

Cystic sarcoma makes its appearance about the middle period of life and is usually confined to one testicle. If not removed the tumor attains to a very large size, as you see in this case. It is not possible in some cases to distinguish a cystic sarcoma from a malignant disease. A cancerous mass is painful and increases periodically; that is, there are long periods of time when the disease seems stationary, but this tumor

has had a steady growth from year to year.

If the cysts in this growth contain tesselated epithelium and no cancerous cells the prognosis is favorable.

Removal is the only treatment. Such operations in the aged do not promise as good results as the same operation in the young. The death-rate in the old from surgical operations upon the generative organs is not much greater than in the young.

The age of this patient should not make any difference in reference to the operation, as the tumor includes the greater portion of the penis, and the urine is dribbled over the tumor. The disease will soon infect the constitution from septic absorption or the tumor may become malignant.

As the disease has been of slow growth and painless, and the patient has suffered most from the inconvenience, he objects to it removal, but it is only a matter of time until something will have to be done or the disease will prove fatal.

The Significance of the Venous Pulse.

New York Medical Journal.

Dr. James Mackenzie divides the venous pulse into two forms, the auricular and the ventricular. The former, he says, presents distinct evidence of the functional activity of the right auricle. In this form there is also a wave due to the ventricle, and as it increases the aricular wave decreases and finally disappears, and thus the ventricular pulse is developed. The latter form is a more advanced stage than the auricular, and, as during its development there is a gradual fading of the auricular wave, there is a period when such terms do not sufficiently denote the character of the pulse; but the terms are convenient for descriptive purposes. The ventricular venous pulse appears only when there is organic disease of the heart itself (most commonly in valvular disease). When failure of the heart is functional and not due to organic disease of the valves, the aricular pulse persists to the end. Similar types of pulse may be recognized in the liver. Here the pulse appears only when there is organic disease of the heart. In many respects, says Dr. Mackenzie, more information regarding the various cavities of the heart can be obtained from the study of the venous pulse than from that of the arterial pulse. Thus, during a cardiac revolution the arterial pulse is in free communication with but one chamber, the left ventricle, only a portion of the time, whereas in the venous pulse the effects of the right auricle during its systole and its diastole may be observed, while the time of the appearance of the ventricular wave gives information regarding the degree of incompetence of the tricuspid orifice. Information may be gathered regarding the exact time of closure of the pulmonary valves, and the persistence of the ventricle in systole for a short time after the outflow through the arterial orifices has ceased may be noted. There is also distinct evidence of the diastole of the right ventricle in the venous pulse. In heart failure the venous pulse affords information of a kind entirely different from that supplied by other means. Its appearance, increase, decrease, and disappearance may give evidences of changes in the blood-pressure quite inappreciable by any signs given by the arterial pulse. While, as a general rule, an increase of the the venous pressure implies a diminution of the arterial pressure, that, nevertheless, is not always the case. Although in some cases the disappearance of the venous pulse is a sign of the restoration of the body to a healthier condition, yet in other cases it may precede a fatal termination. In these last cases there is also a failure of arterial pressure. In pulse irregularities no true knowledge of the action of the different chambers of the heart can be obtained except by the study of the venous pulse, and this study, says the author, throws a new light upon the heart's movements, and reveals a variety of them hitherto unsuspected.

DR. E. SENN reports good results from the use of olive oil in gastric ulcer.

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W. E. McVEY, B.S., M.D., Managing Editor.

Collaborators:
J. E. MINNEY, A.M., M.D., Topeka, Kas.
S. G. STEWART, M.D., Topeka, Kas.
J. C. McCLINTOCK, A.M., M.D., Topeka, Kas.
M. B. WARD, A.M., M.D., Topeka, Kas.

Topeka, Kansas, Saturday, Oct. 6, 1894.

The Moderate Drinker.

What are the practical facts respecting the moderate drinker? The *Lancet Clinic* says: "Recently a chairman of a hospital board refused to confirm the appointment of a noted physician on the staff of the hospital because it was found that he was a moderate and continuous drinker. He gave as a reason that *his* pecuniary interests had always suffered when placed in the care of moderate drinkers, and he could not consistently vote to give larger and more sacred responsibilities to the care of similar persons."

Someone who reads the above will say crank, prohibitory enthusiast, etc. The facts are that the practical business world is in advance of the medical profession in this respect. Business men soon get rid of the clerk or salesman who is a moderate drinker or an occasional "tooter." It is a reason why women are displacing so many men in shops, stores, telegraph offices, and business in general.

Railroad companies are getting strict in this respect, and the traveling public universally commends the effort. Wholesale liquor houses much prefer a salesman who is an abstainer. Saloon owners when they can point with pride to the bartender who is a teetotaler, and offer it as an evidence that selling whisky is a means of temperance.

In every honorable calling or vocation in life the abstainer from alcohol is the most desirable man, all things being equal. It seems that the medical profession, although in a position to do the most good in this direction, is letting the world push it to a practical realization of the fact that moderate drinking is dangerous and injurious.

It is not necessary to tell the physician and surgeon how much more difficult it is to treat a moderate drinker even, in sickness or injury. In all chronic troubles one of the first questions asked by the doctor is, Do you drink? Why is this question asked? Because in the habitual or occasional hard drinkers the tissues are changed, the normal condition is absent, the life force is in abeyance and a lowered vitality is present, and the physician will compensate for it as far as possible.

He knows and says, as a matter of self-protection, in his prognosis of the case: "I would have more hope for his recovery if he was not a drinker." The people know this, and no set of men know this better than medical men, and we fear no profession does less to counteract or check the wrong. Telling patients to send for a crate, keg or barrel of beer and then have them use it ad libitum, is wrong in both practice and principle. So far as the good that will result and the liability to harm incurred, it would be much better to have them send for arsenic, strychnia, calomel, iron, etc. The doctor or the druggist would then proportion the dose and the training school for drunkards would not be patronized. It is related

of an intelligent physician who had become a wreck through drink, that in chosing an attendant physician he would not have one who was a moderate drinker. "No," he said, "I know the effects of moderate drinking, of prescribing a dozen bottles of beer at a time and a pint of whisky; it is a damnable practice and has brought me to my present condition, and I want none of it nor the man who practices it."

The old saying that the drunken doctor was the bright one has long been exploded, and the laity know how fallacious it is to say a man is better prepared for his professional work when he is drunk or half crazed on alcohol than when in his right mind.

The business men are astonished to see the indifference of the medical profession in this direction, and are taking the matter in their own hands and great good has resulted already. Brethren let us help them.

Combined Heart Tonics.

We are not advocates at any time of what are known as "shot gun" prescriptions, but a scientific combination of drugs which will by a combination of various physiological effects produce the desired result, cannot be classed as "shot gun." It is claimed, and we believe with excellent reason, that no one of the heart tonics or stimulants will alone produce results equal to the effects of a combination. We say with good reason, because we believe the reason can be found in the action of the drugs themselves. In the first place we will take digitalis. This drug stimulates the cardiac motor ganglia, the inhibitory apparatus and the vaso motor centers, contracting the arterioles, thereby greatly increasing the arterial tension. In other words, we increase the force of the heart, slow its action, and by contracting the arterioles increase the resistance. The effect of such a condition is to exhaust muscular power and increase dilatation. Where we have a weak muscle or a dilated heart we want increased force but not increased resistance. Nitro-glycerine produces vascular dilation and relaxes the inhibition of the heart. By a combination of these two remedies then we secure stimulation of the cardiac motor ganglia by the digitalis, and its stimulatory effect upon the inhibitory centers is counteracted by the effect of the nitro-glycerine, as is also its action upon the arterioles.

In strophanthus we have a remedy which acts primarily upon muscular tissue by direct contact through the blood. It increases the contractile power of all striped muscles, but as the heart receives more blood in a given time than any other muscle it is more quickly affected, and can therefore be reached by a dose that will not affect other muscles.

We can then by adding this to our combination have a heart tonic which increases the power of the heart by stimulating its motor ganglia and also by increasing the contractile power of its muscular tissue.

An adjunct to the combined effect of these drugs is found in belladonna. It stimulates the cardiac sympathetic and paralyses the pneumo-gastric, thus stimulating the accelerator apparatus while lessening the inhibitory, just the effect of our combination of digitalis and nitro-glycerine. It increases arterial tension by the increased heart action not by contraction of the arterioles, and therefore does not increase resistance. Convallaria is so nearly an analogue of digitalis that we can see no benefit to be gained from its use except that where prolonged administration is required it might be substituted for digitalis, thus getting rid of the cumulative effect of the latter drug.

What to Read.

A question that every physician decides for himself, whether wisely or unwisely. There can be no great difference of opinion as to the duty of every medical man to devote himself to the pursuit of knowledge in the science he has chosen for his life work. The influence or the assistance he may be able to derive from general reading depends

considerably upon the man and his previous education. To the well educated man a knowledge of literature and an acquaintance with the standard authors of the day seems almost a necessary accomplishment. There are, however, a great many men in the profession to-day who do not appreciate the value or influence upon their professional lives of any course of reading outside of medicine. Should we say these men are narrow minded we would hardly be just, for there is a certain matter of favoritism with readers which on the same grounds stamp them all as narrow minded. We have favorite authors and favorite works of these authors. All authors and all books have a certain influence in the shaping of our minds and characters. The lives and works of all our great men bear the impress of the books they have read. Physicians are as susceptible to the influence of a good book as other men, and they should read as many of the standard and popular authors as their time will allow. No physician can be a student of Shakespeare without feeling he has been benefitted thereby. The selection of works, however, is a matter of taste and must be determined by each individual for himself.

Small Things in Medicine.

A physician's popularity with the people often depends more upon his knowledge of little things than his ability to meet the great calamities of life. Women especially appreciate a physician's advice in regard to small matters. It occasions no loss of dignity and often pleases your lady patient if you can suggest to her that frequent annointments with oil will prevent wrinkling and keep the skin soft and healthy.

Every physician should know that for tired, aching feet there is no speedier relief than a good foot bath and a change of shoes and stockings. When your patient complains of painful corns you can usually relieve them of suffering and often remove the corn by having them bathe the foot with hot water and soap and cover the corn with absorbent cotton. Keep it thus protected until the callous is removed. Suggest a little sugar for the baby's hiccough, and the mother will credit you with more knowledge than you claim. To be well acqainted with the various uses that can be made of hot water is indispensable to the specialist or general practitioner. It is just as creditable to relieve a neuralgia or a headache by applications of hot water as by the use of a narcotic or sedative. Hot water will often give speedier results in a coryza, sore throat or an inflamed eye than the best remedies of our materia medica.

One of the things which it is essential for the successful physician to know and know well is human nature. Some people are best treated when they are most humored, but to distinguish these individuals from those who must be scolded and threatened requires accurate perception of human nature.

Society Meeting.

The Northeast Kansas Medical Society will meet at Muscotah, Kan., October 16, 1894. The following is the programme:

"Orificial Surgery"—Dr. S. M. Riggs, Muscotah.

Discussion—P. R. Moore, M.D., Effingham.

"Is Alcohol a Food?"—Dr. S. E. Sheldon, Topeka.

Discussion—Dr. A. B. McCandless, Holton.

"Strangulated Hernia"—Dr. J. T. Scott, Holton.

Discussion—Dr. J. E. Love, Whiting.

"Infantile Ophthalmia"—Dr. R. S. Magee, Topeka.

Discussion—Dr. J. A. Rafter, Holton.

"Food in Diseases of the Digestive Organs"—Dr. J. A. Rafter, Holton.

Discussion—Dr. J. F. Preston, Arrington.

J. A. RAFTER, M.D.,
Secretary.

Eastern Kansas Medical Society.

PROGRAM—KANSAS CITY, KAS., OCT. 9.

"Fractures of the Base of the Radius"—Geo. M. Gray, M.D., Kansas City, Kas.

"A Muscular Spasm"—W. S. Lindsay, M.D., Topeka.

"Ophthalmia Neonatorum"—J. W. May, M.D., Kansas City, Kas.

"Carcinoma and Colloid Cancer of the Spleen and Vertebræ"—D. R. Pelton, M. D., Topeka.

"The Place of Education in the Treatment of Diseases of Women"—Frances Storrs, M.D., Topeka.

"Report of a Case"—A. P. Tenney, M.D., Kansas City, Kas.

Vaccination and the Public Schools.

The legal right of boards of education to exclude children who refuse to be vaccinated is pretty well established by a recent decision of the supreme court of New York. We reprint the following from the Brooklyn *Medical Journal:*

"It will be remembered that some months ago two of the principals of Brooklyn public schools, carrying out a rule of the board of education, refused to admit children who were unvaccinated. Applications were made to the supreme court for mandamuses to compel their admission. Justice Willard Bartlett denied the applications in the following decision:

"'The avowed purpose of this application is to test the constitutionality of section 200 of the public health law of this state, which provides that no child or person not vaccinated shall be admitted or received into any of the public schools of the state, and commands the trustees or other officers having the charge, management or control of such schools to cause this prohibition to be enforced. Upon the oral argument I expressed the opinion that this enactment was a valid exercise of the police power of the legislature, and that view has only been confirmed by an examination of the authorities cited in the briefs of counsel. A common school education, under the existing constitution of the state of New York, is a privilege rather than a right. It is created by legislation and subject to legislative regulation. . . . It follows that the state can certainly exercise this discretion by debarring from attendance at the public schools such persons as are unwilling to adopt a precaution which, in the judgment of the legislature, is essential to the preservation of the health of the large body of scholars.

"'In California there is a statute which provides for the exclusion of unvaccinated children from the public schools. The constitutionality of the law was questioned in the supreme court of that state in 1890, one of the objections being technical and the other being that the subject of the act was not within the scope of a police regulation. Both of the objections were overruled, the court declaring that as vaccination was the most effective method known of preventing the spread of smallpox it was for the legislature to determine whether the scholars of the public schools should be subjected to it and the legislature was justified in deeming it a necessary and salutary burden to impose upon that general class.

"'To vaccinate a person against his will, without legal authority to do so, would be an assault; and it was suggested on the argument, by the learned counsel for the petitioner, that the statute of this state providing for the compulsory attendance of truant children at the public schools, when construed in connection with the provisions of the public health law relative to vaccination, would have the effect of obliging a child to submit to an assault at the hands of the school authorities. No such question as this, however, arises in the present case. The only effort here is to insist upon a condition which the legislature has made a precedent to the exercise of a privilege. It will be time enough to decide whether the state can force a child to attend school, and force him to be vaccinated as a prerequisite

to such attendance, when an officer attempts such a proceeding.

"'I may add that the very point upon which this case turns is very different from that which was before Mr. Justice Gaynor, in the matter of Smith and Cummings, where the commissioner of health restrained the petitioners from their liberty until they consented to be vaccinated, although the legislature had conferred no such power upon him.

"'Application denied.'"

The Prolonged Bath.

Modern Medicine.

A patient in the St. Louis hospital was recently kept immersed in a bath tub for six weeks, for the cure of a large sloughing abscess, a current of water being constantly passed through the tub. The writer has, within the last twenty years, treated many cases of gangrene, crushed limbs, sloughing sores, etc., by this method, and has found better results than by any other. Its success is due to the asepsis secured by the constant immersion. The presence of a large quantity of water is not favorable to the development of pus-forming germs, so that suppuration is lessened, and at the same time the poisons resulting from the action of the disease germs are washed away. These poisons, when left in contact with the tissues, paralyze the living cells and destroy them, thus hindering the reparative efforts; but by the constant cleansing effected by contact of water kept pure by frequent renewal, the tissues are protected from the toxic influence of these poisons, and healthful repair is thus promoted.

While in Vienna some twelve years ago, the writer found patients living in tubs of water, who had been immersed for periods varying from six months to a year or more. The cells of the body are accustomed to contact with moisture; in this respect they may even be compared to acquatic animals. The blood cells are carried by a current of watery fluid, and the tissue cells are all constantly bathed in this fluid, so that the contact of water with the living tissues is a condition closely analogous to that which is naturally maintained within the body.

Nuclein as a Cure for Phthisis.

American Lancet.

It has been demonstrated that there exists in healthy bodies a substance capable of killing a certain number of disease germs. Some French investigators have thought this substance to be the white blood-corpuscles. The Germans urge that it is the blood serum and the albumen serum.

Dr. Victor C. Vaughan, of Ann Arbor, has for a long time been experimenting with this problem, and concludes that this germ-destroying substance is the nuclein.

From his published results it would seem as if he had proved his proposition. By repeated experiments with the nucleins he finally was able to cure guinea pigs that had been inoculated with tuberculous germs. Further, the same nucleins injected into guinea pigs rendered them non-susceptible to the action of pneumonia germs.

The nucleins have been used in tuberculosis in human beings with the result of curing cases in the primary stages of the disease, of delaying the disease when farther advanced, and of having no effect in advanced stages.

The difficulties in preparing the nucleins for this purpose have been many, and the results obtained by the use of the remedy are improved in proportion to the perfection of the process of manufacture. The general method of preparing the nucleins is to dissolve the nuclein from the rest of the cell by a strong alkali; after acidulating this solution, the nuclein is precipitated with alcohol; then, after washing repeatedly this precipitate with acid alcohol, it is dissolved in a solution of chemical salts similar to that found in the blood.

In practice this solution is injected under the skin or in the muscular substance.

It is clear that the preparation of this sub-

stance calls for knowledge and skill. Dr. Vaughan's results have improved with his experience in its preparation.

It is believed that the nuclein's not only destroy disease germs, but also act as a food or stimulant to those organs in the body which normally furnish nuclein to resist invading germs. The indication for the use of the substance, then, is clearly in such cases as are invaded by disease germs in numbers beyond the ability of the attacked organs to dispose of, If now the physician sends an army of nucleins to the aid of the defeated natural forces, he may turn the tide and defeat the disease germs in their attacks upon human life.

The theory is a fascinating one, and if the results by other observers shall confirm the work of Dr. Vaughan and his co-laborers, medicine will have won a victory over disease, and in an intelligent manner laid out by modern scientific research.

No doubt skepticism will point to the number of methods that have arisen during the past few years for the cure of phthisis and proved utter failures. But the hopeful will remember that the day begins with a glimmering light rather than the full-orbed sun, and so await with patience the perfect proof of the germ-destroying power of the nucleins.

Thyroid Theory of Graves' Disease.

Philadelphia Medical News.

The conclusions of Dr. Booth's paper read at the American Neurological Association were as follows:

(1) it is by no means decided that a mere excess of the thyroid secretion is the sole and essential factor in Graves' disease; but as a microscopic examination has demonstrated an enormous hyperplasia of the secreting structure, it is certainly reasonable to suppose that these changes must have some profound effect both on the quantity and the quality of the secretion. (2) If altered structure and not size is the test of the disease, then thyroidectomy should be considered even in those cases in which there is little or no enlargement of the thyroid. (3) Cases of Graves' disease may be entirely cured by thyroidectomy. How this is brought about is not clear as yet. It may possibly be by one of three ways, viz.: a diminution of the functional activity of the gland-substance; a relief of the stretching and irritation of the sympathetic nerve-fibers; or, finally, the removal of pressure.

Lotsil.

Lotsil is a compound of Thymel-Acetamide recrystalized and purified by an improved process, and combined with citrate of caffeine, mono-bromide of camphor, and sodium bicarb. The formula for Lotsil accompanies each package. In fevers, with or without pain, rheumatoid maladies, neuralgia, myalgia, hemacrania, difficult and painful menstruation, etc., there is no therapeutic agent superior to Lotsil.

It reduces temperature and relieves pain very promptly, without subsequent depressing effects which follow the use of most drugs of this class when given at frequent intervals. For the treatment of malarial fevers, Lotsil, combined with quinine, increases the efficacy of the latter and prevents its unpleasant effects.

Lotsil is supplied in ounces only, finely powdered, or in 5-grain Perfection Tablets, at 40 cents per ounce. For sale by all druggists.

DR. OSBORN, of Texas, claims the eruption and pustule of smallpox is due to the lodgment of a specific germ in the skin and mucous membrane, and that by destroying the germ the eruption can be prevented. He claims success with the use of a ten per cent. solution of bichloride of mercury.

THE fractional U. S. silver currency may be used for metric weights—the half-dollar equals 12½ grams, the quarter-dollar 6¼ grams, and the dime 2½ grams.

ONE of the great annoyances that attend pregnancy is constipation. We find the safest and best laxative a woman can take when in such condition is an occasional dose of elixir six aperiens. The physician should see that his patient's bowels are thoroughly emptied a few days before confinement, for we have learned from experience that the woman who keeps her bowels moderately open for a few days before delivery has a much easier time.

Cascara Sagrada.

Dr. W. H. Walling, in the Medical and Surgical Reporter, July 14, 1894.

FOR THE ELIMINATION OF URIC ACID.

It seems to be the accepted opinion that the pathology of uric acid is more a matter of defective elimination than of excessive formation. Osler says, "certain symptoms arise in connection with defective food or tissue metabolism, more particularly of the nitrogenous elements; and this faulty metabolism, if long continued, may lead to gout, with uratic deposits in the joints, acute inflammations, and aterial and renal disease."

Not getting the desired results, I was led to drop all the socalled antilithics, and rely simply and solely upon a single remedy—Cascara Sagrada. Repeated trials have convinced me that the faulty metabolism is more quickly remedied with this drug alone than with any other or combinations.

Mrs. G., aged 55, was for years subject to uric-acid storms, and without getting relief. I exhibited the aromatic fluid extract cascara made by Parke, Davis & Co., in ten to fifteen-drop doses, two or three times daily as demanded, finally settling down to one single dose at the close of the day. The effect was not at once apparent, but within two weeks there was marked amelioration of the aggravated symptoms, and in four weeks the swollen joints had almost resumed a normal appearance, the soreness having nearly disappeared. At this writing (two months having elapsed) there is no complaint whatever, but the remedy is continued. No change was made in the diet, as I desired to more fully test the remedy, and I am fully satisfied that the good results were due solely to the cascara. I have tried other brands of cascara, but they have not been satisfactory, hence I have come to regard the fluid extract above alluded to as the only one upon which I can confidently rely. It never fails, hence my preference.

INSTEAD of giving so much quinine in chronic malarial troubles and in cases where there is an abnormal temperature of ½ to 1° and yet the patient is able to go about, give from ⅙ to ¼ grain of calomel three times a day.

FOR pimples and blackheads it is stated that a lotion of alcohol, three ounces, salicylic acid one drachm, will cause a prompt disappearance of pimples and comedones.—*Medical Summary.*

A QUACK doctor who is expounding the science of medicine to the people of Topeka with a brass band and a minstrel show, has discovered that consumption is really due to a tape worm.

IT has been clearly demonstrated that the eucalyptus tree is no more a preventive of malaria than the oak or the elm. Cleanliness is the secret of health.

IT is reported that Dr. Geo. Halley has resigned his professorship in the University Medical College of Kansas City.

LEMON juice snuffed into the nostril is recommended as a cure of coryza.